

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for treating a surface of ~~at least one~~ a substrate, wherein the ~~at least one~~ substrate is placed in a process chamber, ~~wherein~~ and a plasma is generated by ~~at least one~~ a plasma source, the ~~at least one~~ plasma source being a cascade source  $[(9)]$ , wherein ~~at least one~~ a cathode  $[(4)]$  of the cascade source  $[(3)]$  is present in a prechamber  $[(6)]$  in which, during use, a relatively high pressure  $[(P2)]$  prevails compared to a relatively low pressure  $[(P1)]$  prevailing in the process chamber  $[(1)]$ , wherein, via a ~~relatively narrow~~ channel  $[(7)]$  bounded by mutually electrically insulated cascade plates  $[(8)]$ , the prechamber  $[(6)]$  opens into the process chamber  $[(1)]$ , such that, during use, the plasma extends via the ~~relatively narrow~~ channel  $[(7)]$  into the process chamber  $[(1)]$ , ~~characterized in that the method comprising~~, during the treatment, ~~at least one moving the~~ plasma source  $[(3)]$  and/or ~~at least one optionally provided~~ a treatment fluid supply source is ~~moved~~ relative to the substrate surface.
2. (Currently amended) A method according to claim 1, ~~characterized in that~~ wherein the plasma source  $[(3)]$  and/or the ~~optional~~ treatment fluid supply source is rotated about at least one a rotation axis (14, 15), ~~which axis (14, 15) that~~ extends substantially parallel to the substrate surface.
3. (Currently amended) A method according to claim 1 ~~[[or 2]]~~, ~~characterized in that~~ wherein the plasma source  $[(3)]$  and/or the ~~optional~~ treatment fluid supply source is moved in a direction towards the substrate surface or away from it.
4. (Currently amended) A method according to claim 1 ~~any one of the preceding claims~~, ~~characterized in that~~ wherein the plasma source  $[(3)]$  and/or the ~~optional~~ treatment fluid supply source is moved in at least one lateral direction relative to the substrate surface.
5. (Currently amended) A method according to claim 1 ~~any one of the preceding claims~~, ~~characterized in that~~ wherein the plasma source  $[(3)]$  and/or the ~~optional~~ treatment fluid

supply source is rotated about an axis extending perpendicularly relative to the substrate surface.

6. (Currently amended) A method according to claim 1 ~~any one of the preceding claims, characterized in that~~ wherein a treatment fluid is added to the plasma, ~~in particular for the purpose of PECVD.~~

7. (Currently amended) A method according to claim 6, ~~characterized in that~~ wherein the amount of treatment fluid to be added to the plasma is related to the movement of the ~~at least one~~ plasma source ~~[(3)]~~.

8. (Currently amended) A method according to claim 6 ~~[(or 7)]~~, ~~characterized in that a~~ wherein the treatment fluid is supplied into the ~~[(a)]~~ prechamber ~~[(6)]~~ of the cascade source ~~[(3)]~~, near ~~[(a)]~~ the cascade source cathode ~~[(4)]~~ present in ~~[(this)]~~ the prechamber ~~[(6)]~~.

9. (Currently amended) A method according to ~~at least~~ claim 6 ~~[(or 7)]~~, ~~characterized in that~~ wherein, between the ~~at least one~~ plasma source ~~[(3)]~~ and the substrate surface, ~~at least one~~ the treatment fluid supply source ~~[(9)]~~ is arranged to add the treatment fluid to the plasma.

10. (Currently amended) A method according to claim 9 ~~characterized in that~~ wherein, during the treatment, the ~~at least one~~ treatment fluid supply source ~~[(9)]~~ is moved relative to the substrate surface, ~~wherein and~~ the movement of the treatment fluid supply source ~~[(9)]~~ is related to the movement of ~~the at least one~~ plasma source ~~[(3)]~~.

11. (Currently amended) A method according to claim 1 ~~any one of the preceding claims, characterized in that~~ wherein the ~~at least one~~ plasma source ~~[(3)]~~ is moved such that each part of the substrate surface undergoes substantially the same extent of treatment, in ~~particular in that~~ each part of ~~[(this)]~~ the substrate surface is reached by the same amount of plasma.

12. (Currently amended) A method according to claim 1 ~~any one of claims 1-10,~~  
~~characterized in that wherein~~ the ~~at least one~~ plasma source ~~[[3]]~~ is moved such that at least  
a first part of the substrate surface undergoes substantially a greater extent of treatment than a  
second part of ~~[[this]]~~ the substrate surface, ~~in particular~~ in that the first surface part is  
reached by a larger amount of plasma than the second surface part.

13. (Currently amended) A method according to claim 1 ~~any one of the preceding claims,~~  
wherein said plasma source ~~[[3]]~~ is mounted on the process chamber.

14. (Currently amended) A method according to claim 1 ~~any one of claims 1-12,~~ wherein  
said substrate is provided with at least one cavity at least partly bounded by said substrate  
surface, wherein, during treatment, at least a part of said plasma source and/or at least said  
treatment fluid supply source is and/or has been introduced into said substrate cavity.

15. (Currently amended) A method according to claim 1 ~~any one of the preceding claims,~~  
wherein, during the treatment, said plasma source ~~[[3]]~~ and/or treatment fluid supply source  
carries out at least one three-dimensional movement.

16. (Currently amended) An apparatus for treating a surface of ~~at least one~~ a substrate,  
~~wherein the apparatus is provided with~~ comprising: a process chamber and ~~at least one~~ a  
plasma source, the ~~at least one~~ plasma source being a cascade source ~~[[3]]~~, wherein ~~at least~~  
~~one~~ a cathode ~~[[4]]~~ of the cascade source ~~[[3]]~~ is present in a prechamber ~~[[6]]~~ in which,  
during use, a relatively high pressure ~~[[P2]]~~ prevails compared to a relatively low pressure,  
~~[[P1]]~~ prevailing in the process chamber ~~[[1]]~~, wherein, via a ~~relatively narrow~~ channel  
~~[[7]]~~ bounded by mutually electrically insulated cascade plates ~~[[8]]~~, the prechamber  
~~[[6]]~~ opens into the process chamber ~~[[1]]~~, such that, during use, the plasma extends via  
the ~~relatively narrow~~ channel ~~[[7]]~~ into the process chamber ~~[[1]]~~, ~~characterized in that the~~  
~~at least one~~ and the plasma source ~~[[3]]~~ and/or ~~at least one optionally provided~~ a treatment  
fluid supply source is movably arranged.

17. (Currently amended) An apparatus according to claim 16, ~~characterized in that the~~  
~~apparatus is provided with~~ wherein a resilient ~~means (11)~~ element is arranged to exert  
~~[[such]]~~ a spring force on the ~~at least one~~ plasma source ~~[[3]]~~ such that, under the influence

of ~~[[this]]~~ the spring force, the plasma source ~~[[3]]~~ can move to a starting position when the plasma source ~~[[3]]~~ is not in ~~[[this]]~~ the starting position.

18. (Currently amended) An apparatus according to claim 16 ~~any one of claims 16-17,~~  
~~characterized in that~~ wherein, between the ~~at least one~~ plasma source ~~[[3]]~~ and the process  
chamber ~~[[1]]~~, a flexible, substantially gastight sealing is provided.

19. (Currently amended) An apparatus according to claim 1 ~~any one of claims 16-18,~~  
~~characterized in that~~ wherein the apparatus is provided with a first housing part ~~[[16]]~~ and a  
second housing part ~~[[17]]~~, wherein the ~~at least one~~ plasma source is provided on the first  
housing part ~~[[16]]~~, ~~wherein~~ and the first housing part ~~[[16]]~~ is coupled to the second  
housing part ~~[[17]]~~ in a substantially gastight and movable manner, ~~in particular by a thin-~~  
~~walled stainless steel bellows (11).~~

20. (Currently amended) An apparatus according to claim 16 ~~any one of claims 16-19,~~  
~~characterized in that~~ wherein the apparatus is provided with ~~at least one~~ a motor ~~(12, 13)~~ for  
~~the purpose of moving~~ configured to move the ~~at least one~~ plasma source ~~[[3]]~~.

21. (Currently amended) An apparatus according to claim 16 ~~any one of claims 16-20,~~  
~~characterized in that~~ wherein the ~~at least one~~ plasma source ~~[[3]]~~ is arranged so as to be  
rotatable about a ~~at least one~~ first ~~[[14]]~~ rotation axis and ~~[[one]]~~ a second rotation axis  
~~[[15]]~~, wherein the first and second rotation axes ~~axis (14 and 15 respectively)~~ each extend  
substantially parallel to the substrate surface and in a different direction.

22. (Currently amended) An apparatus according to claim 16 ~~one of claims 16-21,~~  
~~characterized in that~~ wherein the process chamber ~~[[1]]~~ is provided with ~~at least one~~ the  
treatment fluid supply source ~~[[9]]~~ to add a treatment fluid to the plasma, ~~in particular for~~  
~~the purpose of PECVD.~~

23. (Currently amended) An apparatus according to claim 22, ~~characterized in that the at~~  
~~least one~~ wherein treatment fluid supply source ~~[[9]]~~ is arranged to add treatment fluid to  
the plasma extending via ~~each relatively narrow cascade source~~ the channel ~~[[7]]~~ into the  
process chamber ~~[[1]]~~.

24. (Currently amended) An apparatus according to claim 22 ~~or 23, characterized in that~~ wherein the ~~at least one~~ treatment fluid supply source ~~[[9]]~~ is provided with ~~at least one a~~ plasma passage through which the plasma extends during use.

25. (Currently amended) An apparatus according to claim 22 ~~any one of claims 22-24,~~ ~~characterized in that~~ wherein the ~~at least one~~ treatment fluid supply source ~~[[9]]~~ is movably arranged in the process chamber ~~[[1]]~~.

26. (Currently amended) An apparatus according to claim 25, ~~characterized in that~~ wherein the ~~at least one~~ treatment fluid supply source ~~[[9]]~~ is coupled to the ~~at least one~~ plasma source, such that the movement of the ~~at least one~~ treatment fluid supply source ~~[[9]]~~ is related to the movement of the ~~at least one~~ plasma source ~~[[3]]~~.

27. (Currently amended) An apparatus according to claim 16 ~~any one of claims 16-26,~~ wherein said plasma source is mounted on the process chamber.

28. (Currently amended) An apparatus according to claim 16 ~~any one of claims 16-27,~~ wherein said plasma source and/or ~~at least~~ said treatment fluid supply source are arranged to carry out one or more three-dimensional movements.

29. (Currently amended) An apparatus according to claim 16 ~~any one of claims 16-28,~~ wherein the apparatus is ~~at least~~ arranged to carry out PECVD.

30. (Currently amended) A substrate provided with a surface with at least one layer of material deposited on it, ~~characterized in that~~ wherein the layer has been deposited using a method according to ~~any one of claims 1-15 and/or using an apparatus according to any one of claims 16-29~~ claim 1.

31. (New) A method according to claim 6, wherein the treatment fluid is added to the plasma for the purpose of PECVD.

32. (New) An apparatus according to claim 19, wherein first housing part is coupled to the second housing part by a thin-walled stainless-steel bellows.